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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,795

04/02/2004

Yukihito Ichikawa

119355

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25944

7590

05/31/2007

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EXAMINER

GREENE, JASON M

ART UNIT

PAPER NUMBER

1724

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,795	<b>Applicant(s)</b> ICHIKAWA, YUKIHITO	
	<b>Examiner</b> Jason M. Greene	<b>Art Unit</b> 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-13 and 15 is/are allowed.
- 6) ☒ Claim(s) 1-5, 14, 16-21 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/30/04; 10/18/06; 12/28/06</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claims***

2. With regard to claims 14 and 15, the Examiner suggests Applicants rewrite the phrase "the honeycomb structure" in line 6 as "a honeycomb structure" to provide improved antecedent basis.

3. With regard to claim 21, the Examiner suggests Applicants rewrite the phrase "the plugging portion" in line 5 as " a plugging portion" to provide improved antecedent basis.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Sigling (US 6,613,297 B1).

Sigling discloses a discharge fluid purification system comprising a purification section for purifying a discharge fluid and an introductory section for introducing the discharge into the purification section, wherein the purification section comprises a honeycomb structure (1) comprising partition walls arranged so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the partition walls having different heights in the axial direction are arranged in the one-end portion, and further comprising a plurality of partition walls arranged in parallel with an x-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite side of the one-end portion, and further comprising a plurality of partition walls arranged in parallel with a Y-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the

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height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite sides in the one-end portion, and comprising partition walls having different heights in the axial direction in the other end portion in Figs. 3-7 and col. 5, line 26 to col. 6, line 24.

6. Claims 1-3, 5 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Okawara et al. (US 2004/018123).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Okawara et al. discloses a discharge fluid purification system comprising a purification section for purifying a discharge fluid and an introductory section for introducing the discharge into the purification section, wherein the purification section comprises a honeycomb structure (1,2) comprising partition walls arranged so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the partition walls having different heights in the axial direction are arranged in the one-end portion, and further comprising a plurality of partition walls arranged in parallel with an x-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite side of the one-end portion, and further comprising a plurality of partition walls arranged in parallel

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with a Y-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite sides in the one-end portion, and wherein the partition wall includes a portion whose thickness is reduced toward a tip in the end portion in Figs. 3-6 and paragraphs [0076] to [0088].

7. Claims 1-4 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by European Patent Application Publication EP 1 215 374 A1.

EP 1 215 374 A1 discloses a discharge fluid purification system comprising a purification section for purifying a discharge fluid and an introductory section for introducing the discharge into the purification section, wherein the purification section comprises a honeycomb structure (34) comprising partition walls arranged so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the partition walls having different heights in the axial direction are arranged in the one-end portion, and further comprising a plurality of partition walls arranged in parallel with an x-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite side of the one-end portion, and further comprising a plurality of partition walls arranged in parallel with a Y-direction in a section vertical to the axial direction of the honeycomb structure, wherein

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the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite sides in the one-end portion, and comprising partition walls having different heights in the axial direction in the other end portion in Figs. 3 and 4 and paragraphs [0013] to [0017].

8. Claims 1-4 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Schnedecker (US 4,338,273).

Schnedecker discloses a discharge fluid purification system comprising a purification section for purifying a discharge fluid and an introductory section for introducing the discharge into the purification section, wherein the purification section comprises a honeycomb structure (10) comprising partition walls arranged so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the partition walls having different heights in the axial direction are arranged in the one-end portion, and further comprising a plurality of partition walls arranged in parallel with an x-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite side of the one-end portion, and further comprising a plurality of partition walls arranged in parallel with a Y-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the

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height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite sides in the one-end portion, and comprising partition walls having different heights in the axial direction in the other end portion in Fig. 1 and col. 2, lines 38-61.

9. Claims 1-3 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese Patent Application Publication JP 2003-24726.

JP 2003-24726 discloses a discharge fluid purification system comprising a purification section for purifying a discharge fluid and an introductory section for introducing the discharge into the purification section, wherein the purification section comprises a honeycomb structure (10) comprising partition walls arranged so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the partition walls having different heights in the axial direction are arranged in the one-end portion, and further comprising a plurality of partition walls arranged in parallel with an x-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite side of the one-end portion, and further comprising a plurality of partition walls arranged in parallel with a Y-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent



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partition walls on opposite sides in the one-end portion in Figs. 1-7 and paragraphs [0041] to [0086] of the English language translation.

10. Claims 1-3 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldsmith (US 4,781,831).

Goldsmith discloses a discharge fluid purification system comprising a purification section for purifying a discharge fluid and an introductory section for introducing the discharge into the purification section, wherein the purification section comprises a honeycomb structure (10) comprising partition walls arranged so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the partition walls having different heights in the axial direction are arranged in the one-end portion, and further comprising a plurality of partition walls arranged in parallel with an x-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite side of the one-end portion, and further comprising a plurality of partition walls arranged in parallel with a Y-direction in a section vertical to the axial direction of the honeycomb structure, wherein the plurality of partition walls include a partition wall disposed in such a manner that the height of the partition wall in the axial direction is different from the heights of adjacent partition walls on opposite sides in the one-end portion in Figs. 1-7 and col. 5, line 20 to col. 7, line 65.

11. Claims 16-18, 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Okawara et al. (US 2004/018123).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Okawara et al. discloses a method of manufacturing a honeycomb structure comprising a step of processing/removing two adjacent partition walls along a longitudinal direction of the partition wall in one-end portion of a honeycomb body comprising partition walls arranged in parallel to the x-direction and parallel to the y-direction in a section vertical to the axial direction so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the honeycomb body is a fired body and the firing step is performed either before or after the processing removing step in Figs. 3-6 and paragraphs [0076] to [0088].

12. Claims 16-18, 20 and 22-25 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese Patent Application Publication JP 2003-24726.

JP 2003-24726 discloses a method of manufacturing a honeycomb structure comprising a step of processing/removing two adjacent partitions walls and a plugging portion between the partition walls along a longitudinal direction of the partition wall in one-end portion of a honeycomb body comprising partition walls arranged in parallel to

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the x-direction and parallel to the y-direction in a section vertical to the axial direction so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the honeycomb body is a fired body and the firing step is performed either before or after the processing removing step in Figs. 1-7 and paragraphs [0041] to [0086] of the English language translation.

13. Claims 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldsmith (US 4,781,831).

Goldsmith discloses a method of manufacturing a honeycomb structure comprising a step of processing/removing two adjacent partition walls along a longitudinal direction of the partition wall in one-end portion of a honeycomb body comprising partition walls arranged in parallel to the x-direction and parallel to the y-direction in a section vertical to the axial direction so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction, wherein the honeycomb body is a fired body and the firing step is performed either before or after the processing removing step in Figs. 1-7 and col. 5, line 20 to col. 12, line 64.

***Allowable Subject Matter***

14. Claims 6-13 and 15 are allowed.

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15. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 6-13 and 15, the prior art made of record does not teach or fairly suggest the honeycomb structure of claim 6 or the discharge fluid purification system of claim 15 wherein the honeycomb structure comprises the recited convex and concave plugging portions.

With regard to claim 22, the prior art made of record does not teach or fairly suggest the method of claim 20 wherein the processing/removing step comprises removing the honeycomb body broader on an end portion side than on an inner side of the axial direction of the honeycomb body.

### ***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571)


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272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M. Greene  
Primary Examiner  
Art Unit 1724

  
5/28/07

jmg  
May 28, 2007